

10/803,161

- 2 -

Amendments to the Claims

Please amend Claims 1 and 8. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (Currently Amended) An extrusion die comprising:

an inner die portion having a male form, the male form having a male complex shape with peaks and a valley and an axis, the male complex shape having at least four of peaks and at least a valley, on each side of the axis;

an outer die portion having a female form, the female form having a female complex shape with peaks and a valley which corresponds to valleys shaped to match the male complex shape of the male form, the female complex shape surrounding and being separated from the male complex shape by a gap, flowable material capable of being extruded through the gap between the male and female complex shapes to form a hollow profile; and

an adjustment mechanism comprising an outer member surrounding the outer die portion, and at least eight adjustment screws threaded through the outer member and engaging a flange extending from the outer die portion at equidistant angular locations and configured to provide controlled incremental linear and rotational adjustment of the female complex shape relative to the male complex shape for adjusting the gap and for adjusting the position and orientation of the corresponding peaks and valleys of the male and female complex shapes relative to each other, the outer member having an annular shoulder with an opening through which the outer die portion passes, the annular shoulder capturing the flange extending from the outer die portion and extending into a groove adjacent to the flange, the annular shoulder and groove being configured to allow movement of the outer die portion relative to the outer member.

2. (Original) The die of Claim 1 in which the male complex shape of the inner die portion is surrounded by the female complex shape of the outer die portion on all sides.
3. Canceled.

10/803,161

- 3 -

4. Canceled.
5. Canceled.
6. (Original) The die of Claim 1 in which the inner die portion is fixed within a spider pipe.
7. (Original) The die of Claim 6 in which the outer member of the adjustment mechanism is a retaining ring which secures the outer die portion to the spider pipe, the adjustment screws being threaded radially inwardly through the retaining ring to engage the outer die portion.
8. (Currently Amended) An extrusion die comprising:
 - an inner die portion having a male form, the male form having a male complex shape with multiple peaks and valleys and an axis, the male complex shape having at least four of, peaks and valleys, on each side of the axis;
 - an outer die portion having a female form, the female form having a female complex shape with at least four of, multiple peaks and valleys, which corresponds to on each side of the axis and shaped to match the male complex shape of the male form, the female complex shape surrounding the male complex shape on all sides and being separated from the male complex shape by a gap, flowable material capable of being extruded through the gap between the male and female complex shapes to form a hollow profile; and
 - an adjustment mechanism comprising a retaining ring surrounding the outer die portion, and at least eight adjustment screws threaded through the retaining ring and engaging a flange extending from the outer die portion at equidistant angular locations and configured to provide controlled incremental linear and rotational adjustment of the female complex shape relative to the male complex shape for adjusting the gap and for adjusting the position and orientation of the corresponding peaks and valleys of the male and female complex shapes relative to each other, the retaining ring having an annular shoulder with an opening through which the outer die portion passes, the annular shoulder capturing the flange extending from the outer die portion and extending into a

10/803,161

- 4 -

~~groove adjacent to the flange, the annular shoulder and groove being configured to allow movement of the outer die portion relative to the retaining ring.~~

9. Canceled.
10. Canceled.
11. (Original) The die of Claim 8 in which the inner die portion is fixed within a spider pipe.
12. (Original) The die of Claim 11 in which the retaining ring secures the outer die portion to the spider pipe, the adjustment screws being threaded radially inwardly through the retaining ring to engage the outer die portion.
13. (Withdrawn) A method of adjusting an extrusion die, the extrusion die comprising an inner die portion having a male form, the male form having a male complex shape with peaks and a valley, and an outer die portion having a female form, the female form having a female complex shape which with peaks and a valley which corresponds to the male complex shape of the male form, the female complex shape surrounding and being separated from the male complex shape by a gap, flowable material capable of being extruded through the gap between the male and female complex shapes to form a hollow profile, and an adjustment mechanism comprising an outer member surrounding the outer die portion, at least eight adjustment screws being threaded through the outer member and engaging the outer die portion at equidistant angular locations in opposed pairs, the method comprising:

in selected opposed pairs of adjustment screws, each having a first and second adjustment screw, sequentially and repeatedly loosening the first adjustment screw and tightening the second adjustment screw of a pair to obtain incremental lateral movement of the outer die portion relative to the inner die portion and subsequently adjusting the remaining adjustment screws to relieve compression or remove slack caused by the lateral movement, the incremental movement enabling controlled adjustment of the female complex shape relative to the male complex shape for adjusting the gap, and for

10/803,161

- 5 -

adjusting the position and orientation of the corresponding peaks and valleys of the male and female complex shapes relative to each other.